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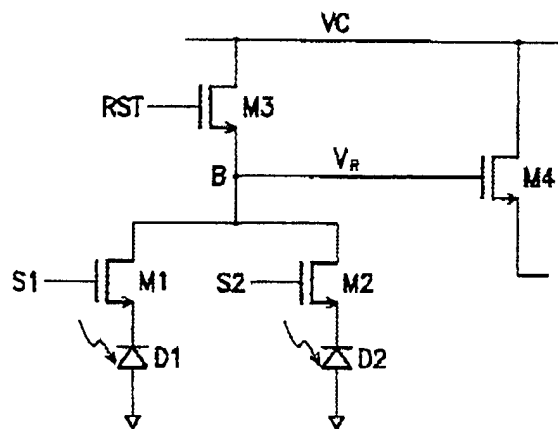
(54) 【発明の名称】 共用読出し構造を有するアクティブイメージセンサ

Active image sensor with common read-out structure

(57) 【要約】

【課題】 相接する2つのアクティブイメージセンサのフォトダイオードが一組の読出し回路を共用できるようにアクティブイメージセンサを提供すること。

【解決手段】 第1のフォトダイオードおよび第1のNMOSトランジスタ、第2のフォトダイオードおよび第2のNMOSトランジスタ、ならびに第3のNMOSトランジスタおよび第4のNMOSトランジスタ、を有し、第1、第2の選択信号およびリセット信号の切り換えを時間割制御し、合わせて可変電圧源の電位を切り換えることにより、前記第1、第2のフォトダイオードにより感知された光度を、前記第4のNMOSトランジスタのソースにある出力端から読取ることができる共用読出し構造を有するアクティブイメージセンサ。



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ACTIVE IMAGE SENSOR PROVIDED WITH SHARED READ STRUCTURE

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ABSTRACT

PROBLEM TO BE SOLVED: To provide an active image sensor capable of sharing one set of read circuits by the photodiodes of two active image sensors in contact with each other.

SOLUTION: The active image sensor provided with a shared read structure is provided with a first photodiode D1, a first NMOS transistor M1, a second photodiode D2, a second NMOS transistor M2, a third NMOS transistor M3 and a fourth NMOS transistor M4. By time division controlling the changeover of first and second selection signals are reset signals and switching the potential of a variable voltage source, luminosity sensed by the first and second photodiodes D1, D2 is read from an output end present at the source of the fourth NMOS transistor M4.

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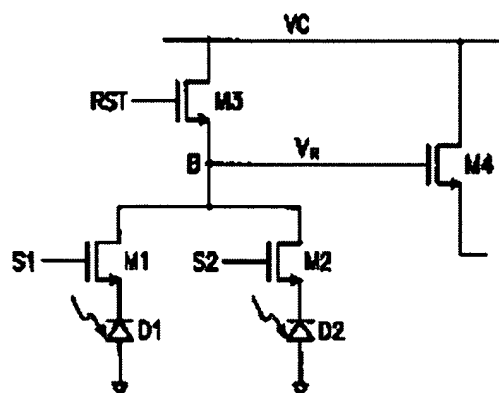
(72)Inventor : O ITO

(54) ACTIVE IMAGE SENSOR PROVIDED WITH SHARED READ STRUCTURE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an active image sensor capable of sharing one set of read circuits by the photodiodes of two active image sensors in contact with each other.

SOLUTION: The active image sensor provided with a shared read structure is provided with a first photodiode D1, a first NMOS transistor M1, a second photodiode D2, a second NMOS transistor M2, a third NMOS transistor M3 and a fourth NMOS transistor M4. By time division controlling the changeover of first and second selection signals are reset signals and switching the potential of a variable voltage source, luminosity sensed by the first and second photodiodes D1, D2 is read from an output end present at the source of the fourth NMOS transistor M4.



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